

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listing of claims in the application:

Listing of Claims

1. (Currently Amended) A bone replacement material to be used by being packed into a bone defective part, wherein the bone replacement material consists essentially of a calcium phosphate based compound and is formed into a pellet and satisfies both of the following conditions (I) and (II):

(I) porosity is equal to or less than 75%; and

(II) collapsing strength is equal to or more than 15Mpa, and

wherein the pellet has a roughly polyhedral shape and,

wherein the pellet is defined by a plurality of surfaces including a pair of opposite, non-parallel surfaces, one of the opposite, non-parallel surfaces being inclined at a predetermined angle with respect to the other of the opposite, non-parallel surfaces, and

wherein the bone replacement material is in a state such that a number of pellets of the bone replacement material are introduced into a cavity of the bone defective part and are aggregated therein, and

wherein each pellet of the roughly polyhedral shape is defined by a plurality of edges having different lengths, in which the length of the longest edge is in the range of 5 to 10 mm and the length of the shortest edge is in the range of 2 to 5 mm, wherein the volume of each pellet of the bone replacement material is in the range of 13 to 239 mm³,

wherein the bone replacement material is adapted to be packed into a cavity of the bone defective part using a cylindrical member having a hollow passage,

wherein when a plurality of pellets of the bone replacement material are introduced and packed into the cavity in the bone defective part using the cylindrical member, each pellet of the bone replacement material is inserted into the hollow passage of the cylindrical member such that the inclined surface of the pellet faces the inclined surface of the adjacent pellet, whereby each pellet of the bone replacement material is pushed out in various directions from the hollow passage of the cylindrical member, and

wherein the plurality of pellets are configured to be pushed into the cavity in the bone defective part using the cylindrical member after being placed into the hollow passage of the cylindrical member.

2. (Original) The bone replacement material as claimed in claim 1, wherein the pellet has a roughly prismatic shape.

3. (Original) The bone replacement material as claimed in claim 1, wherein the pellet has a roughly hexahedral shape.

4. (Previously Presented) The bone replacement material as claimed in claim 3, wherein the pellet is formed into a rectangular solid, a part of which is cut off.

5. (Original) The bone replacement material as claimed in claim 1, wherein the pellet has a roughly pentahedral shape.

6. (Previously Presented) The bone replacement material as claimed in claim 5, wherein the pellet is formed into a triangular prism shape, a part of which is cut off.

7. (Previously Presented) The bone replacement material as claimed in claim 1, wherein the roughly polyhedral shape has a circumferential surface and two side surfaces.

8. (Previously Presented) The bone replacement material as claimed in claim 7, wherein the pellet is formed into a cylinder solid, a part of which is cut off.

9. (Canceled)

10. (Previously Presented) The bone replacement material as claimed in claim 1, wherein the predetermined angle is in the range of 10 to 60°.

11. (Canceled)

12. (Canceled)

13. (Canceled)

14. (Original) The bone replacement material as claimed in claim 1, wherein each pellet of the bone replacement material has been subjected to a chamfering processing.

15. (Canceled)

16. (Canceled)

17.-18. (Canceled)

19. (Previously Presented) The bone replacement material as claimed in claim 1, wherein the Ca/P ratio of the calcium phosphate based compound is in the range of 1.0 to 2.0.

20. (Original) The bone replacement material as claimed in claim 1, wherein the bone replacement material is adapted to be packed into a bone defective part formed in one or more bones such as vertebral body, ilium, scapula, humerus, ulna, radius, femur, tibia and fibula.

21. (Previously Presented) The bone replacement material as claimed in claim 20, wherein, when a plurality of pellets of the bone replacement material are introduced and packed into a cavity in the bone defective part using a cylindrical member having a hollow passage, each pellet of the bone replacement material is inserted into the hollow passage of the cylindrical member such that the inclined surface of the pellet faces the inclined surface of the adjacent pellet, whereby each pellet of the bone replacement material is pushed out in various directions from the hollow passage of the cylindrical member,

wherein each of the plurality of pellets is free of a through hole being provided therethrough, and wherein the plurality of pellets are configured to be pushed into the cavity in

the bone defective part using the cylindrical member after being placed into the hollow passage of the cylindrical member.